

COMPLETE LISTING OF CLAIMS
IN ASCENDING ORDER WITH STATUS INDICATOR

RECEIVED
SEP 26 2003
TC 1700

1 (Currently amended). A method of producing a complex oxide thin-film comprising the steps of:

(a) providing a metal compound solution comprising at least two metal compounds dissolved in a solvent;

(b) ~~atomizing the metal compound solution in a two fluid nozzle having a discharge end~~ heating a substrate in a film-forming chamber, and ~~directly introducing the atomized solution into the~~ to a film-forming temperature chamber in which the pressure is about 100 Torr or lower and having a substrate therein by mixing a gas with the metal compound solution in the two fluid nozzle and discharging the atomized mixture into the chamber, and

(c) after heating the substrate, introducing said solution in atomized form into the film-forming chamber so as to form ~~forming~~ a complex oxide thin-film on ~~[[a]] the substrate in the film-forming chamber at a temperature equal to or higher than the boiling point of the solvent.~~

2 ((Currently amended). A method of producing a complex oxide thin-film according to claim 1, wherein the solution is atomized in ~~the~~ a two-fluid nozzle with an oxidative gas.

3 (Original). A method of producing a complex oxide thin-film according to claim 2, wherein the solvent has a boiling point of at least 100° C under ordinary pressure.

4 (Original). A method of producing a complex oxide thin-film according to claim 3, wherein at least one of the metal compounds is a dipivaloylmethanato complex.

5 (Original). A method of producing a complex oxide thin-film according to claim 4, wherein at least one of the metal compounds is an acetylacetonato complex.

6 (Original). A method of producing a complex oxide thin-film according to claim 5, wherein the solution contains three metal compounds and at least one of the metal compounds is a metal alkoxide.

7 (Original). A method of producing a complex oxide thin-film according to claim 6, wherein the film-forming (c) is performed at least two times, and after each film-forming, the film is heat-treated under a pressure lower than that employed for the film forming.

8 (Original). A method of producing a complex oxide thin-film according to claim 7, wherein at least the film obtained after the final-forming is heat treated at an oxygen gas partial pressure higher than an oxygen gas partial pressure existent during film-forming.

9 (Original). A method of producing a complex oxide thin-film according to claim 1, wherein the solvent has a boiling point of at least about 100° C under ordinary pressure.

10 (Original). A method of producing a complex oxide thin-film according to claim 1, wherein at least one of the metal compounds is a dipivaloylmethanato complex.

11 (Original). A method of producing a complex oxide thin-film according to claim 1, wherein at least one of the metal compounds is an acetylacetonato complex.

12 (Original). A method of producing a complex oxide thin-film according to claim 1, wherein at least one of the metal compounds is a metal alkoxide.

13 (Original). A method of producing a complex oxide thin-film according to claim 1, wherein the film-forming is performed at least two times, and after each film-forming, the film is heat-treated under a pressure lower than that employed for the film-forming.

14 (Original). A method of producing a complex oxide thin-film according to claim 1, wherein at least the film obtained by the final film-forming is heat treated at an oxygen gas partial pressure higher than an oxygen gas partial pressure existent during film-forming.

15-18 (CANCELLED).

19. (New) A method of producing a complex oxide thin-film according to claim 1, wherein the film-forming chamber having a substrate therein into which the atomized solution is introduced is at a pressure at about 100 Torr or lower.

20. (New) A method of producing a complex oxide thin-film according to claim 2, wherein the metal compound solution is atomized in a two-fluid nozzle having a discharge end in the film-forming chamber containing the substrate, and the atomized solution is directly introducing into the film forming chamber in which the pressure is

about 100 Torr or lower by mixing a gas with a metal compound solution in the two-fluid nozzle and discharging the atomized mixture into the chamber.

21. (New) A method of producing a complex oxide thin-film according to claim 20, in which the substrate is heated to a temperature equal to or higher than the boiling point of the solvent.